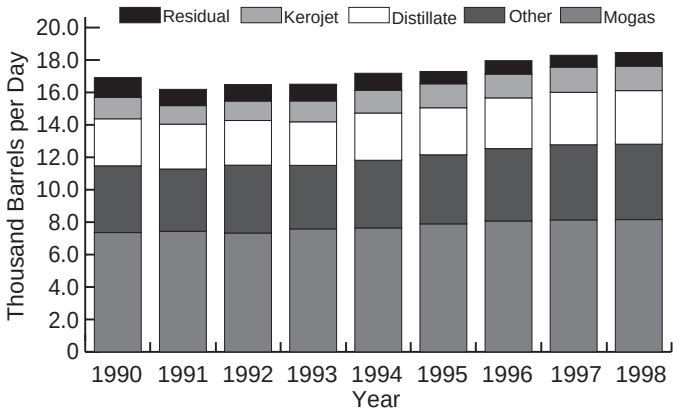
Highlights

The combination of a strong economy, mild weather and increased personal incomes led to a **May record level of demand** for refined petroleum products. Total demand in May 1998[1] for refined petroleum products (measured as products supplied) averaged 18.5 million barrels per day (Table H1 & Figure H1). Temperatures across the U.S. were unusually cool for the month. Nationally, temperatures in May averaged 31.6 percent cooler than normal and 83.8 percent cooler than this time last year.[2] In Alan Greenspan's recent testimony on the state of the economy before Congress' Joint Economic Committee, he noted that despite the economic problems abroad the U.S. economy continues to expand at a robust rate.[3]

Figure H1. Total Demand, 1990-Current, Comparison in May for Products

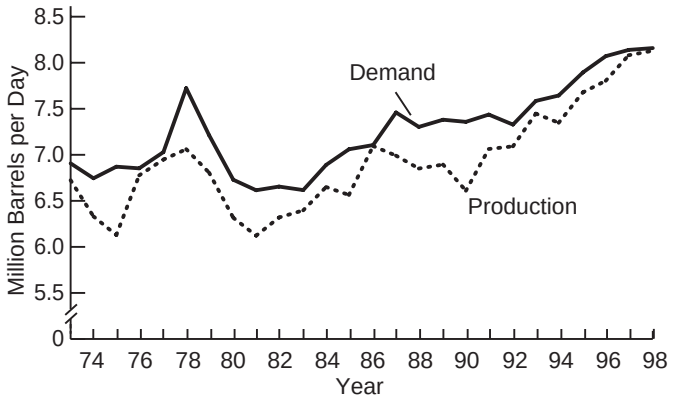


Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

May 1998 highlights include:

- To start off the summer driving season **demand** for finished motor gasoline set a **record high for May**, averaging 8.2 million barrels per day. **Production** of finished motor gasoline also set a record for the month at 8.1 million barrels per day. By the end of May, finished motor gasoline **stocks** totaled 169.9 million barrels.
- **Production** of distillate fuel oil set a **new high** for the month, averaging 3.6 million barrels per day. **Demand** also reached **a record level** for the month at an average of 3.3 million barrels per day. Distillate fuel oil **stocks** totaled 131 million barrels by the end of the month, **the highest level for May since 1981**.
- **Demand** for residual fuel oil remained relatively strong, averaging 842 thousand barrels per day. Residual fuel oil **exports** reached an average of 118 thousand barrels per day.
- Both **production** and **demand** for kerosene-type jet fuel were near the record highs for the month, each averaging 1.5 million barrels per day. **Stocks** of kerosene-type jet fuel ended the month at the highest level ever for May totaling 43.3 million barrels.
- Propane **stocks** ended the month at 51.8 million barrels, **the highest level for the month since 1982.**
- **Production** of crude oil averaged 6.4 million barrels, the lowest level for May in 40 years. Crude oil **imports** were just shy of the record for the month, averaging 8.6 million barrels per day. **Exports** were in the upper range for this time of year at an average of 104 thousand barrels per day. Crude oil **stocks** ended the month up more than 20 million barrels compared to this time last year.

Figure H2. Finished Motor Gasoline, Year-to-Year May Comparisons, 1973-1998



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Motor Gasoline

Demand for finished motor gasoline set a **record high for May** at an average of 8.2 million barrels per day, thanks to low gas prices, a strong economy, and the popularity of larger, less fuel efficient vehicles (Figure H2). Retail prices of conventional motor gasoline during May averaged only 108.5 cents per gallon (including taxes), nearly 14 cents below this time last year (Figure H3).[4] **Production** of finished motor gasoline also set a **record high for May**, averaging 8.1 million barrels per day. Refineries have been focusing on motor gasoline production as margins have remained solid,[5] providing additional incentive to maximize production along with the upcoming anticipated growth in seasonal demand. During May, **exports** of finished motor gasoline averaged 97 thousand barrels per day, which falls in the upper limits of the normal seasonal range. Finished motor gasoline **imports** were normal for the month averaging 339 thousand barrels per day. **Stocks** of finished motor gasoline ended

[1]May 1998 data are monthly-from-weekly estimates based on the Energy Information Administration's Weekly Petroleum Supply Reporting System.

[2]Cooling Degree Day Data Monthly Summary, Monthly Data for May 1998", *National Oceanic Atmospheric Administration*, accessible via the Internet at http://nic.fb4.noaa.gov.

[3]The Economic Outlook and Monetary Policy: Hearings before the Joint Economic Committee of the U.S. Congress, 105th Cong., 2d Sess. (June 10, 1998) (testimony of Chairman Alan Greenspan).

[4]"U.S. Retail Motor Gasoline and On-Highway Diesel Fuel Prices, 1997 to Present", Energy Information Administration, *Weekly Petroleum Status Report*, May 29, 1998, p. 27.

[5]"U.S. East Coast Oil Products: Prices Fall; PDVSA Strike Averted", *Bloomberg Oil Buyer's Guide*, May 8, 1998.

Table H1. Petroleum Supply Summary

(Million Barrels per Day, Except Where Noted)

Category	1998			1997	January - May	
	Estimated May	April	Difference[a]	May	1998	1997
Products Supplied	18.5	18.6	-0.2	18.3	18.4	18.3
Finished Motor Gasoline	8.2	8.1	(s)	8.1	7.9	7.8
Distillate Fuel Oil	3.3	3.4	-0.1	3.2	3.5	3.5
Residual Fuel Oil	0.8	1.0	-0.1	0.7	0.8	0.8
Jet Fuel	1.5	1.6	-0.1	1.6	1.5	1.6
Other Petroleum Products[b]	4.6	4.5	0.1	4.6	4.6	4.6
Crude Oil Inputs	15.2	15.0	0.3	15.1	14.6	14.1
Operating Utilization Rate (%)	98.3	97.3	1.0	98.6	95.6	93.4
Imports	10.5	10.4	0.1	10.8	10.0	10.0
Crude Oil	8.6	8.5	0.1	8.7	8.2	7.9
Strategic Petroleum Reserve	0.0	0.0	0.0	0.0	0.0	0.0
Other	8.6	8.5	0.1	8.7	8.2	7.9
Products	2.0	1.9	0.1	2.2	1.8	2.2
Finished Motor Gasoline	0.3	0.3	0.1	0.4	0.3	0.3
Distillate Fuel Oil	0.2	0.2	(s)	0.2	0.2	0.3
Residual Fuel Oil	0.2	0.2	-0.1	0.2	0.2	0.2
Jet Fuel	0.1	0.1	(s)	0.1	0.1	0.1
Other Petroleum Products[c]	1.2	1.2	(s)	1.3	1.0	1.2
Exports	0.9	1.0	-0.1	0.9	1.0	1.0
Crude Oil	0.1	0.2	-0.1	(s)	0.2	0.1
Products	0.8	0.9	(s)	0.9	0.8	0.8
Total Net Imports	9.6	9.4	0.2	9.9	9.0	9.1
Stock Change[d]	1.1	0.9	0.2	1.4	0.6	0.4
Crude Oil	0.1	0.5	-0.4	0.2	0.3	0.3
Products	1.0	0.4	0.6	1.2	0.2	0.1
Total Stocks (million barrels)	1,632	1,614	18	1,561	--	--
Crude Oil	910	915	-5	890	--	--
Strategic Petroleum Reserve	563	563	0	563	--	--
Other	347	351	-5	326	--	--
Products	722	699	23	671	--	--
Finished Motor Gasoline	170	168	2	158	--	--
Distillate Fuel Oil	131	126	5	108	--	--
Residual Fuel Oil	38	39	-1	39	--	--
Jet Fuel	43	41	2	41	--	--
Other Petroleum Products[c]	340	325	15	325	--	--

[a] Difference is equal to volume for current month minus volume for previous month.

[b] Includes crude oil product supplied, natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and jet fuel.

[c] Includes natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate fuel oil, and residual fuel oil.

[d] A negative number indicates a decrease in stocks and a positive number indicates an increase.

(s) = Less than 0.05 million barrels per day, or less than 0.05 percent, or less than 0.5 million barrels.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA), 1996, *Petroleum Supply Annual*, Volume II; appropriate issues of the *Petroleum Supply Monthly* and the *Weekly Petroleum Status Report*.

Data for the current month are preliminary estimates, based on weekly submissions. For an explanation of estimation methodology and accuracy, see Appendix A of *Weekly Petroleum Status Report* and the article, "Accuracy of Petroleum Supply Data", published in the December 1997*, Petroleum Supply Monthly.*

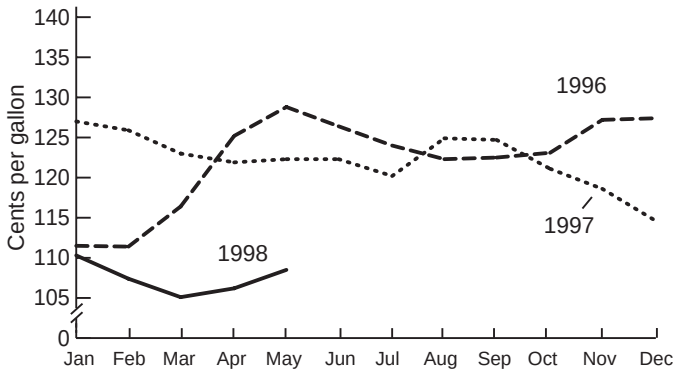
Table H2. U.S. Refinery Inputs, Capacities and Utilization Rates: 1997-1998
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1997												
Gross Refinery Inputs	13,771	13,601	14,156	14,465	15,232	15,300	15,190	15,465	15,533	15,127	14,939	15,188
Operating Refinery Capacity[2]	15,168	15,205	15,233	15,229	15,449	15,461	15,462	15,452	15,464	15,464	15,452	15,424
Idle Capacity[3]	**284**	**247**	**399**	**387**	**167**	**177**	**177**	**189**	**139**	**139**	**150**	**204**
Idle Three Months or Less	197	160	220	180	0	10	10	22	12	12	12	66
Idle More than Three Months	87	87	179	207	167	167	167	167	127	127	139	139
Operable Refinery Capacity	15,452	15,452	15,632	15,616	15,616	15,638	15,639	15,641	15,602	15,602	15,602	15,628
Utilization Rate (percent)												
Operating Capacity	90.8	89.5	92.9	95.0	98.6	99.0	98.2	100.1	100.4	97.8	96.7	98.5
Operable Capacity	89.1	88.0	90.6	92.6	97.5	97.8	97.1	98.9	99.6	97.0	95.7	97.2
1998												
Gross Refinery Inputs	14,655	14,340	14,851	15,170								
Operating Refinery Capacity[2]	15,538	15,555	15,547	15,587								
Idle Capacity[3]	**167**	**158**	**184**	**144**								
Idle Three Months or Less	41	20	46	0								
Idle More than Three Months	127	138	138	144								
Operable Refinery Capacity	15,705	15,713	15,732	15,732								
Utilization Rate (percent)												
Operating Capacity	94.3	92.2	95.5	97.3								
Operable Capacity	93.3	91.3	94.4	96.4								

[1]Capacities are on a calendar day basis.
[2]Operating capacity equals the operable capacity less the total idle capacity.
[3] Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.
Note: Totals may not equal sum of components due to independent rounding.
Sources: Energy Information Administration (EIA), 1997, *Petroleum Supply Annual*, Volume 2, Table 16; EIA, *Petroleum Supply Monthly,* 1998 data issue, Table 28.

the month at 169.9 million barrels, **an increase of nearly 12 million barrels compared to last May**. Total motor gasoline stocks, including blending components, ended the month at the highest level for May since 1993, totaling 218.8 million barrels. Again, favorable margins attributed not only to higher production of refined products, but increases in stocks as well.[6]

Figure H3. Prices for Conventional Motor Gasoline (including taxes), 1996-current



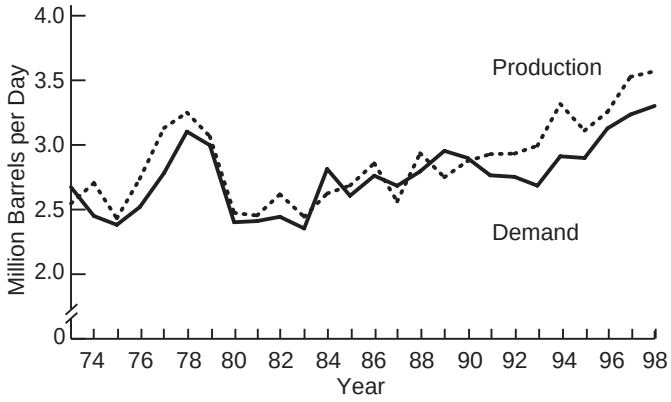
Source: Energy Information Administration, *Weekly Petroleum Status Report,* DOE/EIA-0208 (various issues).

Distillate Fuel Oil

At 3.3 million barrels per day distillate fuel oil **demand was at a record pace for this time of year**. Increases seen in rail freight traffic during the month[7] continue to reflect on the strong transportation demand due to the robust economy. Setting another May record, **production** of distillate fuel oils averaged 3.6 million barrels per day (Figure H4). **Imports** and **exports** of distillate fuel oils were within their normal seasonal ranges, averaging 180 thousand barrels per day and 175 thousand barrels per day respectively. **Stocks** of distillate fuel oils totaled 131 million barrels, more than 22 million barrels above last year's level and the highest level for the month since 1981. Stocks of low sulfur distillate fuel oil, typically for on-highway fuel use, made up slightly more than half of the total at 66.2 million barrels.

[6]"Mild Short-Covering Trims Weekly Crude, Gas Futures Losses", *The Oil Daily*, May 26, 1998, p. 2 & 3.
[7]"U.S. Rail Freight Traffic Up In May", *Association of American Railroads*, June 4, 1998, accessible via the Internet at http://www.aar.org.

Figure H4. Distillate, Year-to-Year May Comparisons, 1973-1998

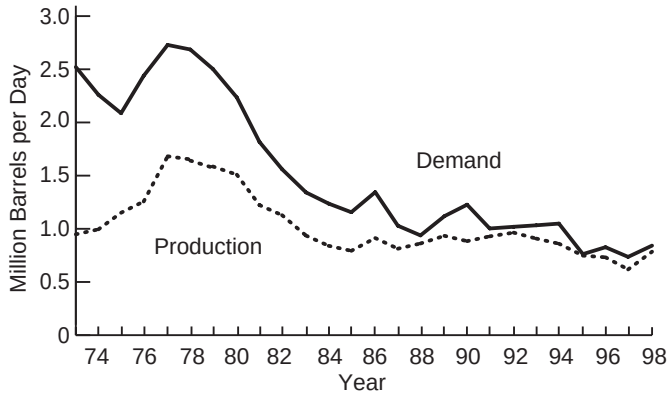


Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Residual Fuel Oil

Both production and demand for residual fuel reached their highest levels for the month in several years (Figure H5). **Production** of residual fuel oil averaged 785 thousand barrels per day. **When compared to last May, that's an increase of 167 thousand barrels per day**. **Demand** for residual fuel oil averaged 842 thousand barrels per day, which is **an increase of more than 14 percent compared to last May**. Along the Gulf Coast and in New England, utilities with the ability to burn resid have been doing so for power generation due to the favorable price difference between resid and natural gas.[8] **Exports** of residual fuel oil in May averaged an impressive 118 thousand barrels per day, while **imports** were normal at 170 thousand barrels per day. The unusually high level of exports can be attributed to the more than usual buying by Venezuela and Mexico. Venezuela has been buying up cargoes to lend support to resid prices which in turn effect their price formulas for their heavy oils, while Mexico has needed the fuel for power generation requirements.[9] **Stocks** ended the month at a total of 38.4 million barrels. A slight decline from last year's level.

Figure H5. Residual, Year-to-Year May Comparisons, 1973-1998

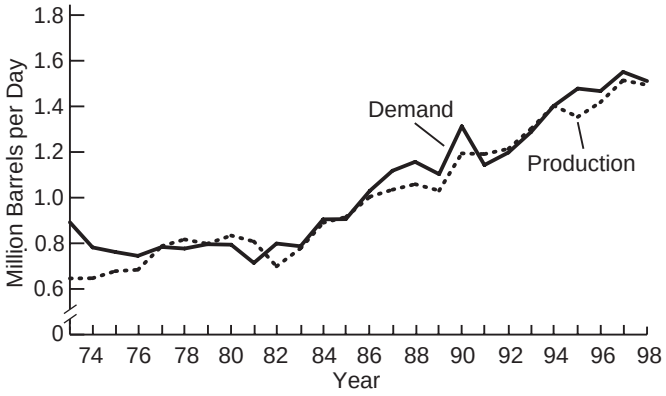


Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Kerosene-Type Jet Fuel

Although neither production of nor demand for kerosene-type jet fuel set a record for the month, both were at near record levels for May (Figure H6). Kerosene-type jet fuel **production** and **demand** each averaged a robust 1.5 million barrels per day, only slightly less than the May records for their respective product supply types. During the month **exports** of kerosene-type jet fuel averaged 31 thousand barrels per day, the highest level for this time of year since 1993. **Imports** were within their normal seasonal range at 98 thousand barrels per day. **Stocks** ended the month at a record level for May, 43.3 million barrels, **an increase of 5.7 percent verses the prior high set last year**.

Figure H6. Kerojet, Year-to-Year May Comparisons, 1973-1998



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

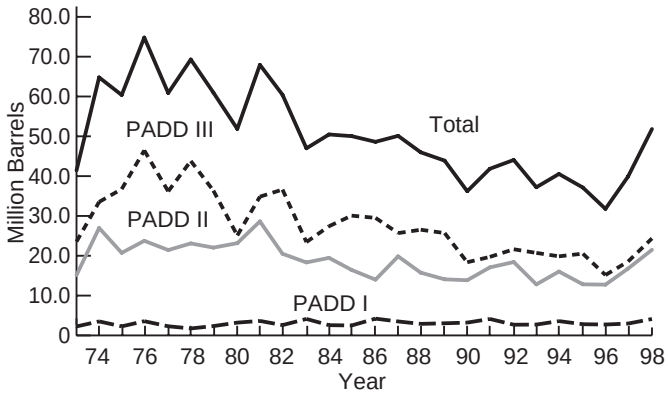
Propane

Propane inventories went through a **record build of 14.7 million barrels** to end the month at 51.8 million barrels, the highest level for May since 1982 (Figure H7). Regionally, propane inventories were significantly higher across the U.S. Inventories in the Gulf Coast and Midwest each increased by more than 6 million barrels, ending the month at 24.4 million barrels and 21.5 million barrels respectively. On the East Coast propane stocks ended the month at 4.1 million barrels, a build of nearly 900 thousand barrels. At these levels inventories in all of the major regions were significantly above their respective normal ranges for this time of year.

So far the seasonal stock build through May is nearly 65 percent of the overall build during a typical build season. A combination of factors were responsible for the record stock builds during the past several months: high levels of gas plant and refinery production, apparent strong imports into the Gulf Coast and Midwest regions, and weakening demand in the petrochemical sector.

[8]"Temptingly Low Natural Gas Prices May Push Power Generators to Switch Away From Resid", *The Oil Daily*, June 9, 1998, p. 3.
[9]"High Stocks Cap Light Products, Resid Shows Strength", *Oil Market Intelligence*, May 1998, p. 8 & 9.

Figure H7. Propane Stocks Year-to-Year May Comparsions, 1973-1998



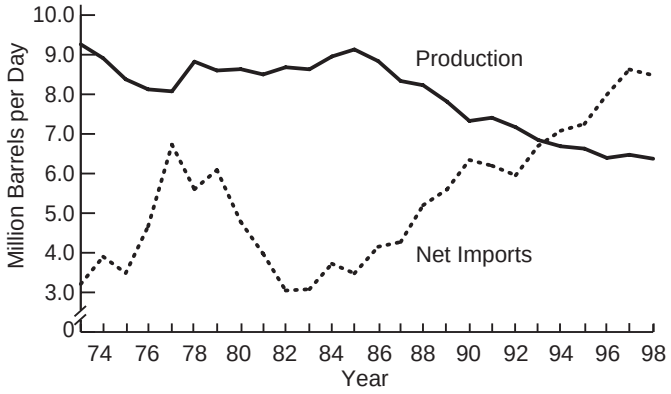
Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Crude Oil

Alaskan field production averaged 1.2 million barrels per day while domestic **production** of crude oil averaged 6.4 million barrels per day in May. Field production of Alaskan crude oil dropped to the **lowest level for any month since March 1978** while domestic production reached the lowest level for May since 1958. One factor contributing to the decrease in production has been low crude oil prices, forcing some marginal wells to become idle and some independent producers to shut the taps as production is not profitable.[10] Surprisingly, **imports** of crude oil did not reach a record level for the month. Crude oil imports averaged 8.6 million barrels per day, only 69 thousand barrels per day below the record for this time of year. Crude oil **exports** were unusually high for this time of year averaging 104 thousand barrels per day, leaving net imports in May at 8.5 million barrels per day. Net imports of crude oil, one measure of U.S. dependence on foreign oil, was less than 150 thousand barrels per day from the May record set last year (Figure H8).

Crude oil **stocks**, excluding the Strategic Petroleum Reserves (SPR), ended the month totaling 346.6 million barrels, more than 20 million barrels higher than this time last year. An extension of the Energy Policy and Conservation Act was signed by the President prohibiting the non-emergency sale of the Strategic Petroleum Reserves through fiscal 1999, as well as, reauthorizing U.S. companies' participation in the International Energy Agency (IEA).[11] Total crude oil stocks, including the SPR, totaled 910 million barrels, **the highest level for any month since November 1995**.

Figure H8. Crude Oil, Year-to-Year May Comparisons, 1973-1998 of Production and Net Imports



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Refinery Operations

Crude oil **inputs** during May averaged 15.2 million barrels per day, a record for the month. The estimated refinery **operable utilization rate** averaged 97.3 percent verses 97.5 percent a year ago.

[10]"Survey Finds 17% Cut in California Production", *The Oil Daily*, June 1, 1998, p. 1 & 4.
[11]"Clinton Signs SPR Extension", *The Oil Daily*, June 5, 1998, p. 7.